Mumbai University

Question Paper

[IDOL – Revised Course]

(May – 2017)

Internet Technologies

Time: 3 Hours **Total Marks:** 100

N.B.: **(1)** *All Question are Compulsory.*
(2) *Make Suitable Assumptions Wherever Necessary And State The Assumptions Made.*
(3) *Answer To The Same Question Must Be Written Together.*
(4) *Number To The Right Indicates Marks.*
(5) *Draw Neat Labeled Diagrams Wherever Necessary.*
(6) *Use of Non – Programmable Calculator is allowed.*

Q.1 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

(A) Explain classless IP4 Addressing. **(5)**
(B) Write Algorithm for input Module in ARP process. **(5)**
(C) Explain Re-Transmission Timer in TCP. **(5)**
(D) Write a note on HTTP Protocol. **(5)**

Q.2 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Differentiate between IP4 & IPv6 Addressing. **(5)**
(B) Explain Fragmentation Offset in IPv4. **(5)**
(C) Explain fields in cache table in ARP process. **(5)**
(D) Write a note on Mobile IP. **(5)**
(E) Write a note on ARP cases. **(5)**
(F) Explain process of ARP. **(5)**

Q.3 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Explain ICMP Timestamp Message Type. **(5)**
(B) Explain different RIP Drawbacks. **(5)**
(C) State & explain Dijkshtra's Algorithm. **(5)**
(D) Write a note on Link State Routing Protocol. **(5)**
(E) Write a note on BGP Attributes. **(5)**
(F) Explain Distance Vector Routing Protocol. **(5)**

Q.4 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Write a short note on SCTP. **(5)**
(B) Explain Congestion Control Technique used by TCP. **(5)**
(C) List SCTP Packets. Explain any two of them. **(5)**
(D) Write a note on Three Way Handshake Protocol used by TCP. **(5)**
(E) Explain different Connectionless Services. **(5)**
(F) List different TCP Options and explain any one. **(5)**

Q.5 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Write a note on different Modes of TELNET Operations. **(5)**
(B) Write a note on DHCP. **(5)**
(C) Explain DNS Protocol. **(5)**
(D) Write a note on SSH Components. **(5)**
(E) Write a note on FTP Commands. **(5)**
(F) Explain TFTP Protocol. **(5)**

[Turn Over]

Q.6 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Explain CGI. **(5)**
(B) Write a note on Cookies in HTTP. **(5)**
(C) Explain different Mail Transfer Phases. **(5)**
(D) Write a note on MIME Headers. **(5)**
(E) Write a short note on MIB. **(5)**
(F) Write a note on MPEG Compression Technique. **(5)**

Q.7 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

(A) Write a note on TCP Socket Programming. **(5)**
(B) Write UDP Socket Program which reads a string from client and reverses it and sends it back to the client. **(5)**
(C) Write a TCP Serve Socket which reads a number from client calculates its square and writes it back to the client. **(5)**
(D) Write a note on Connectionless Socket Programming. **(5)**
(E) Explain classes used for Connection Oriented Socket Programming. **(5)**
(F) Write a note on Concurrent Socket Programming. **(5)**
